Low V_{CESAT} PNP Transistor

FEATURES

- Low $V_{CE(SAT)}$ -0.3 @ I_C =-2A, I_B = -200mA (Typ.)
- Complementary part with TSD882
- Epitaxial Planar Type
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC.
- Halogen-free according to IEC 61249-2-21

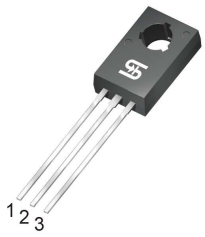
APPLICATION

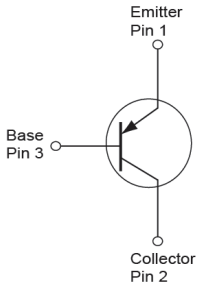
- Power Supply
- Low Speed Switching Applications

KEY PERFORMANCE PARAMETERS			
PARAMETER		**VALUE**	**UNIT**
BV_{CEO}		-30	V
BV_{CBO}		-50	V
I_C		-3	A
$V_{CE(SAT)}$	I_C= -2A, I_B= -200mA	-0.5	V

Pb-Free RoHS COMPLIANT HALOGEN FREE

TO-126





ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)				
PARAMETER		**SYMBOL**	**LIMIT**	**UNIT**
Collector-Base Voltage		V_{CBO}	-50	V
Collector-Emitter Voltage		V_{CEO}	-30	V
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current	DC	I_C	-3	A
	Pulse		-7 (note)	
Collector Power Dissipation	T_A = 25°C	P_D	1	W
	T_C = 25°C		10	
Operating Junction Temperature		T_J	+150	°C
Operating Junction and Storage Temperature Range		T_{STG}	- 55 to +150	°C

Note: Single pulse, Pw≤350μs, Duty≤2%

THERMAL PERFORMANCE			
PARAMETER	**SYMBOL**	**LIMIT**	**UNIT**
Junction to Case Thermal Resistance	$R_{\Theta JC}$	6.25	°C/W

ELECTRICAL SPECIFICATIONS (T_A = 25°C unless otherwise noted)						
PARAMETER	**CONDITIONS**	**SYMBOL**	**MIN**	**TYP**	**MAX**	**UNIT**
Collector-Base Breakdown Voltage	I_C = -50μA, I_E = 0	BV_{CBO}	-50	--	--	V
Collector-Emitter Breakdown Voltage	I_C = -1mA, I_B = 0	BV_{CEO}	-30	--	--	V
Emitter-Base Breakdown Voltage	I_E = -50μA, I_C = 0	BV_{EBO}	-5	--	--	V
Collector Cutoff Current	V_{CB} = -30V, I_E = 0	I_{CBO}	--	--	-1	μA
Emitter Cutoff Current	V_{EB} = -33V, I_C = 0	I_{EBO}	--	--	-1	μA
Collector-Emitter Saturation Voltage	I_C = -2A, I_B= -200mA	*$V_{CE(SAT)}$	--	-0.3	-0.5	V
Base-Emitter Saturation Voltage	I_C = -2A, I_B= -200mA	*$V_{BE(SAT)}$	--	-1	-2	V
DC Current Transfer Ratio	V_{CE} = -2V, I_C = -1A	*h_{FE}	100	--	500	
Transition Frequency	V_{CE} =-5V, I_C=-100mA, f=100MHz	f_T	--	80	--	MHz
Output Capacitance	V_{CB} = -10V, f=1MHz	Cob	--	55	--	pF
Collector Cutoff Current	V_{CB} = -30V, I_E = 0	I_{CBO}	--	--	-1	μA

* Pulse Test: Pulse Width ≤380μS, Duty Cycle≤2%

ORDERING INFORMATION

PART NO.	PACKAGE	PACKING
TSB772CK B0G	TO-126	250pcs / Bulk Bag
TSB772CK C0G	TO-126	50pcs / Tube

ELECTRICAL CHARACTERICS CURVES (T_A=25°C, unless otherwise noted)

Figure 1. DC Current Gain

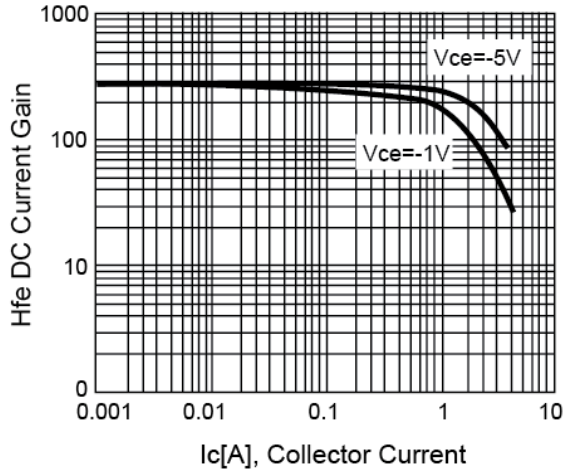


Figure 2. $V_{CE(SAT)}$ vs. Collector Current

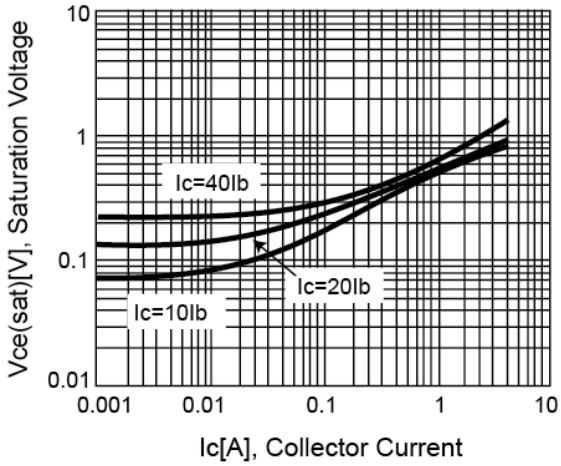


Figure 3. $V_{BE(SAT)}$ vs. Collector Current

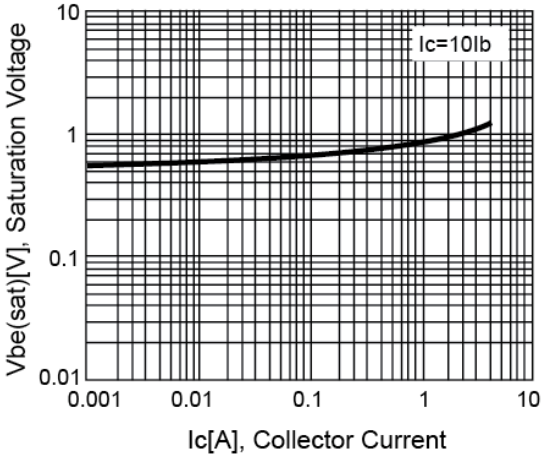
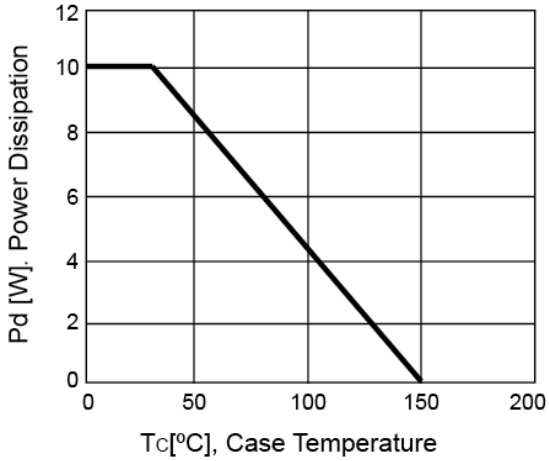
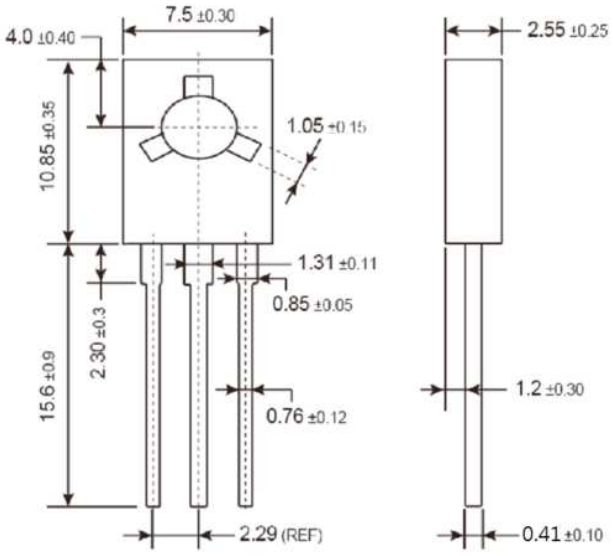


Figure 4. Power Derating Curve

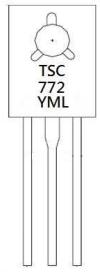


PACKAGE OUTLINE DIMENSIONS (Unit: Millimeters)

TO-126



MARKING DIAGRAM



Y = Year Code

M = Month Code for Halogen Free Product

O	=Jan	**P**	=Feb	**Q**	=Mar	**R**	=Apr
S	=May	**T**	=Jun	**U**	=Jul	**V**	=Aug
W	=Sep	**X**	=Oct	**Y**	=Nov	**Z**	=Dec

L = Lot Code

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